



## A BRIEF LOOK AT DATA INTEROPERABILITY AS IT RELATES TO CHILD ABUSE AND NEGLECT FATALITIES

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### DATA INTEROPERABILITY

Over the course of the Commission’s 2014-2015 study of child abuse and neglect fatalities, a key theme has emerged related to data interoperability between and across systems that serve children and families, such as child welfare agencies, law enforcement, and judicial, education, and health care systems. Public programs and their information systems have developed in silos as a result of the way they are funded and structured. Collaboration and information sharing across these silos have been difficult because of lines of authority and technical limitations in data sharing.

The Administration for Children and Families (ACF) in the U.S. Department of Health and Human Services (HHS) defines interoperability as “the ability of two or more systems or components to exchange information and to use the information to make better decisions” and goes on to note that “the term is often used in a technical engineering sense and also in a broader sense, taking into account social, political, and organizational factors that impact performance.”<sup>1</sup>

Today, innovations in interoperability technology and procedures, some detailed below, are making it possible to connect disparate data systems across locations and fields. This means that critical information can now potentially be shared across silos to improve the ability of public actors to protect children and deliver services to children and families more effectively. One way that this interoperability can be facilitated is through the use of data standards like those provided by the National Information Exchange Model (NIEM).

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<sup>1</sup> See the ACF Interoperability webpage at <http://www.acf.hhs.gov/about/interoperability>.

## What Is NIEM?

The federal government developed the National Information Exchange Model (NIEM) to standardize data to help “connect communities of people who share a common need to exchange information in order to advance their mission.”<sup>2</sup> NIEM is not a database, system, software, or technology stack; rather, it is a standards-based approach for exchanging information. It is a common agreement by those who use NIEM standards to name a given piece of data the same way.

For example, imagine that one agency has a field “SS” and another agency calls that field “SocialSecurityNum.” If they both decide to use NIEM standards, they agree to translate their information into common, agreed-upon terms (in this case, perhaps, “SSN”) so that when they send information to each other, they can match up what is being sent to their own system.

To implement NIEM standards, a sector (such as human services or law enforcement) must detail its data fields using something called an Information Exchange Package Document (IEPD) and map the fields to the common language, drawing upon earlier NIEM work by other fields. Once an IEPD is created for a given sector, it is published to a public domain and made available for anyone in that field to use to make their data NIEM compliant. ACF maintains the IEPD domain repository for human service projects.<sup>3</sup> Existing IEPDs include the Indian Child Welfare Act E-Notification IEPD, the National Youth in Transition Database (NYTD), and the Public Assistance Reporting Information System (PARIS).

Information systems can either take the approach of translating all their fields into a NIEM-compliant format or they can opt for a less expensive and less time-consuming option, such as building interfaces (small programs that connect two larger data systems) to translate data from their system using the IEPD to exchange the data with the target external system.

## HHS DATA INTEROPERABILITY EFFORTS

Across the federal government, there is a growing recognition of the importance of improving data interoperability and doing so in ways that protect privacy and confidentiality rules. Much of the work around data interoperability began with issues related to national security. The White House has issued a couple of strategies for spurring information sharing across agencies, most recently the 2012 *National Strategy for Information Sharing and Safeguarding*.<sup>4</sup> Although the focus is again on national security, the policies and procedures that are being developed for government data sharing in that domain are spilling into other agencies and programs.

One ACF effort has focused on fostering interoperability across human service and medical agencies. The agency has issued program regulation guidelines about information sharing, reimbursement for administrative development work, and utilization of off-the-shelf solutions that help overcome interoperability barriers. ACF has developed a Confidentiality Toolkit to help clarify for states and agencies what information can be shared within existing privacy parameters.<sup>5</sup>

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<sup>2</sup> <https://www.niem.gov/aboutniem/Pages/niem.aspx>

<sup>3</sup> <http://www.acf.hhs.gov/niem-human-service-domain-iepds>

<sup>4</sup> [https://www.whitehouse.gov/sites/default/files/docs/2012sharingstrategy\\_1.pdf](https://www.whitehouse.gov/sites/default/files/docs/2012sharingstrategy_1.pdf)

<sup>5</sup> [https://www.acf.hhs.gov/sites/default/files/assets/acf\\_confidentiality\\_toolkit\\_final\\_08\\_12\\_2014.pdf](https://www.acf.hhs.gov/sites/default/files/assets/acf_confidentiality_toolkit_final_08_12_2014.pdf)

## Judicial and Child Welfare Data Exchange Efforts

In 2007, the Bureau of Justice Assistance, U.S. Department of Justice, the National Center for State Courts (NCSC) worked together to develop national standards for exchanging data between state child welfare agencies and courts. This group became the Court/Child Welfare NET (National Exchange Template) Task Force, which developed a template for data exchange for four distinct types of exchanges—juvenile petition, adjudication order, service plan, and court report.<sup>6</sup>

With support and funding from the Children's Bureau, the ABA Center on Children and the Law, the National Center for State Courts and the National Council of Juvenile and Family Court Judges formed the *National Court and Child Welfare Collaborative: Focus on System Reform*.<sup>7</sup> It is unclear what the status of this collaboration is now, given the reorganization of the Children's Bureau technical assistance resource centers.

## Office of Child Support Enforcement

A collaboration between ACF's Office of Child Support Enforcement (OCSE) and the U.S. Department of Agriculture's Food and Nutrition Service created a Cost Allocation Methodologies (CAM) Toolkit. The CAM toolkit outlines a "simple, consistent, and objective cost allocation methodology that serves as a 'safe harbor' for states that must perform cost allocation of software development cost under an approved Advance Planning Document (APD). The toolkit can:

1. Help states determine equitable distributions of software development costs to federal and state benefiting programs over the system development lifecycle.
2. Help expedite the federal approval process for State Cost Allocation Plans submitted under an APD."<sup>8</sup>

The OCSE formally adopted a NIEM-enabled information exchange—the "Child Support and Court/Judicial Message Exchange Data Model"—in 2008.

## State Systems Interoperability and Integration Projects (S212)

The Office of Management and Budget (OMB) Partnership Fund for Program Integrity Innovation provided ACF with funding for the State Systems Interoperability and Integration Projects (S212).<sup>9</sup> These planning grants funded 12-month projects in seven states to explore and plan improved interoperability and integration in eligibility and enrollment, case management, and other related functions to help streamline administration processes and strengthen program integrity in federal assistance programs across health and human services information technology systems. The seven states used their grants in the following ways:

- **California** promoted the understanding of interoperability statewide and developed an integrated Governance Model.
- **Colorado** built a Client Information Sharing System that facilitates collaboration and data sharing across its Department of Human Services and six other domains.
- **Illinois** developed a sustainable Governance Model for the Healthcare and Human Services Framework.

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<sup>6</sup> [https://www.niem.gov/documentsdb/Documents/Case%20Studies/NIEM\\_helping\\_children.pdf](https://www.niem.gov/documentsdb/Documents/Case%20Studies/NIEM_helping_children.pdf)

<sup>7</sup> [http://www.courtsandchildren.org/PDF/Conference\\_PDFs/1Collaborative%20Info%20Sheet.pdf](http://www.courtsandchildren.org/PDF/Conference_PDFs/1Collaborative%20Info%20Sheet.pdf)

<sup>8</sup> <http://www.acf.hhs.gov/programs/css/resource/cost-allocation-methodologies-cam-toolkit>

<sup>9</sup> <http://www.acf.hhs.gov/about/interoperability#chapter-2>

- **Indiana** worked to automate and improve the state's Vital Events Registry information, collection, and data sharing.
- **Maryland** defined interoperability and its impact on client outcomes at the practice level "Life of the Case" Workflow Analysis Model, and Return on Investment Models and Calculator.
- **New York** developed the Children's Passport, an online reporting portal that captures data from multiple data sources.
- **Oklahoma** built a roadmap that will help redesign the Eligibility and Enrollment system, integrate Service-Oriented Architecture, and expand the Enterprise Service Bus.

### **National Electronic Interstate Compact Enterprise (NEICE): Connecting State Child Welfare Data Systems**

The Interstate Compact on the Placement of Children (ICPC) governs the placement of children across state lines. A state that wishes to explore placement of a child with a family in another state, such as grandmother, sends a packet of case information about the child to the potential receiving state to request a home study from that state. The ICPC process has traditionally been a cumbersome, paper-based process in which case workers prepare paper files, and fax or mail them to receiving state, which conducts the home study and sends back a placement decision for the sending state. This process can take months or even years.

In May 2015, ACF's Administration on Children, Youth, and Families (ACYF) funded the national expansion of a six-state pilot that had successfully implemented the electronic exchange of child welfare information data for interstate placement of children across state jurisdictions for foster care or adoption placements.<sup>10</sup> The National Electronic Interstate Compact Enterprise (NEICE) project uses NIEM data standards to translate the data from one state's information technology (IT) system into a common language for exchange with another state's data system.

The NEICE project has created an electronic mechanism that connects individual state child welfare information systems to one another through the web.<sup>11</sup> This was something that would have been nearly impossible and highly costly to do even 10 years ago. For the first time, Nevada's child welfare system can send child information and documents through NEICE to the District of Columbia via the web, and DC can take that information directly into their child welfare system, so that caseworkers in DC can process the case more quickly. This is translating to better outcomes for children and families, who are seeing shorter timelines for placements to be made across state lines. An evaluation of NEICE found reductions in processing times by almost 40 percent. In addition, participating states have reduced administrative costs in terms of copies, mailing, and staff time. Once NEICE is expanded nationwide, it is expected that these accomplishments will be extended to even more children and families.<sup>12</sup>

In addition, NEICE is charged with building the technical infrastructure that would allow connections of state child abuse and neglect registries, as well as connecting with Medicaid

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<sup>10</sup> <http://www.acf.hhs.gov/media/press/new-web-based-system-will-help-place-foster-children-sooner>

<sup>11</sup> <http://www.aphsa.org/content/AAICPC/en/actions/NEICE.html>

<sup>12</sup> <http://www.aphsa.org/content/dam/AAICPC/PDF%20DOC/NEICE/NEICE%20Full%20Evaluation%206-29-15.pdf>

eligibility systems for checking a youth's eligibility for Medicaid when a youth who has aged out of foster care but should still have access to Medicaid moves across state lines.

### ***NEICE AND Child Abuse and Neglect Fatalities***

Although not specifically designed to address prevention of child abuse and neglect fatalities, the innovative use of NIEM standards by NEICE and the creation of a national clearinghouse to exchange child welfare information securely creates some opportunities for improving collaboration efforts between key actors in preventing child abuse and neglect fatalities. Some of those possibilities are elaborated on below:

1. **Cross-State Queries** - The Commission heard testimony in several settings (see Oregon, National Association of Public Child Welfare Administrators (NAPCWA)) about the challenges of getting information about children and/or families involved in child protective services (CPS) in one state when they move across state lines. The NEICE system could allow states the ability to query and search for children to see if prior CPS involvement has been recorded.
2. **State Child Abuse Registries** - In addition, if federal policy could further drive the connection of state child abuse and neglect registries through NEICE, the ability to query these registries via NEICE could be of significant benefit to state child welfare staff in assessing risk for children.
3. **Law Enforcement Connections** - Finally, in terms of immediate potential for preventing child abuse and neglect fatalities, NEICE opens the path for connecting child welfare information systems with law enforcement systems, using the NIEM standards for data. As part of national efforts to improve the reporting and monitoring of suspicious activities across local law enforcement jurisdictions, heightened by the findings issued by the National Commission on Terrorist Attacks Upon the United States (9/11 Commission), law enforcement agencies connected their IT systems to each other using NIEM standards.<sup>13</sup>

In some pockets of the country, local agencies have figured out a way to share information.

- In El Paso County, Colorado, a CPS worker with prior experience using a criminal data information system in law enforcement agencies has been granted access with some local police jurisdictions to check the law enforcement data when doing investigations.
- Los Angeles County has developed a shared reporting system with access for CPS and law enforcement.
- In New York, CPS hired former law enforcement officers as CPS workers to help advise on investigations, and CPS uses a shared database with law enforcement.
- The FBI's Innocents Lost project has contacted NEICE to inquire about accessing child welfare case data to assist with efforts to identify children previously involved in foster care who may have been victims of trafficking.

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<sup>13</sup> [https://www.niem.gov/documentsdb/Documents/Success%20Stories/SuccessStory\\_SAR.pdf](https://www.niem.gov/documentsdb/Documents/Success%20Stories/SuccessStory_SAR.pdf)

4. **Research** - An additional benefit from states adopting NIEM standards for their child welfare data will likely be an increased common understanding of data fields, which will result in improve data quality and integrity.
5. **Other implications** - Implications for using NIEM via NEICE could spill over into connecting other public databases of at-risk children perhaps through links with substance abuse, health information exchanges, and mental health as ways of confirming delivery of requested services for children and families in prevention efforts.

### Challenges to Increasing NIEM Utilization

Although the potential to use NIEM standards to improve child welfare work is significant, states need to prioritize the adoption of these standards. Competing IT demands in states and few financial incentives may make it difficult for state child welfare programs that wish to use these standards to secure the resources needed internally within the state to implement them. In addition, states vary in terms of their technical experience in working with NIEM standards as well as in building interfaces. Peer-to-peer technical mentoring or inclusion of technical assistance in efforts to foster increased utilization of NIEM standards may be important for long-term success.

### POTENTIAL SPEAKERS ON INTEROPERABILITY, NIEM, AND NEICE

- Frank Baitman, Chief Information Officer, *HHS*
- Donna Roy, Executive Director, *NIEM*  
<https://www.niem.gov/meet-us/Pages/pmo.aspx>
- Justin Stekervetz, Managing Director, *NIEM*  
<https://www.niem.gov/meet-us/Pages/pmo.aspx>
- David Tabler, OCSE, Division of State and Tribal Systems
- Anita Light, American Public Human Services Association (APHSA), Principal Investigator for the NEICE project

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